

DIN EN ISO 21204:2020-09 (E)

Geometrical product specifications (GPS) - Transition specification (ISO 21204:2020)

Contents

Page

European foreword.....	4
Foreword.....	5
Introduction.....	6
1 Scope.....	7
2 Normative references.....	7
3 Terms and definitions.....	7
4 Basic concepts.....	9
5 General indication rules.....	10
5.1 Symbols.....	10
5.2 Indications using the transition specification symbol.....	11
5.2.1 General.....	11
5.2.2 Indications in face view.....	12
5.2.3 Indications in 3D.....	12
5.3 Indication areas around the transition specification symbol.....	13
6 Circular edge transition feature indications.....	13
6.1 Fixed radius profile specification.....	13
6.2 Variable radius profile specification.....	14
6.3 Consistent radius profile specification.....	15
6.4 Maximum material radius boundary specification.....	16
6.5 Least material radius boundary specification.....	16
6.6 Maximum material radius boundary with profile specification.....	17
6.7 Least material radius boundary with profile specification.....	18
6.8 Combined maximum material and least material radius boundary specification.....	19
7 Chamfer edge transition feature indications.....	20
7.1 Fixed chamfer profile specification.....	20
7.2 Variable chamfer profile specification.....	23
7.3 Consistent chamfer profile specification.....	24
7.4 Maximum material chamfer boundary specification.....	25
7.5 Least material chamfer boundary specification.....	26
7.6 Maximum material chamfer boundary with profile specification.....	27
7.7 Least material chamfer boundary with profile specification.....	28
7.8 Combined maximum material and least material chamfer boundary specification.....	29
8 Elliptical edge transition feature indications.....	30
8.1 Fixed elliptical profile specification.....	30
8.2 Variable elliptical profile specification.....	31
8.3 Consistent elliptical profile specification.....	32
8.4 Maximum material elliptical boundary specification.....	32
8.5 Least material elliptical boundary specification.....	33
8.6 Maximum material elliptical boundary with profile specification.....	34
8.7 Least material elliptical boundary with profile specification.....	35
8.8 Combined maximum material and least material elliptical boundary specification.....	36
9 Edge transition feature defined by CAD.....	37
9.1 CAD profile specification.....	37
9.2 Maximum material CAD profile boundary specification.....	38
9.3 Least material CAD profile boundary specification.....	39
9.4 Maximum material CAD profile boundary with profile specification.....	40
9.5 Least material CAD profile boundary with profile specification.....	41

10	Rules for supplemental indications.....	42
10.1	Symbols.....	42
10.2	Limits of different nominal shapes.....	42
10.3	Extent of the tolerated feature.....	43
10.4	Tolerance zone offset.....	43
10.5	Indication of primary adjacent reference section.....	44
10.6	Indication of several tolerated features.....	44
10.7	Indications using the between symbol.....	44
10.8	Around a feature indications	45
10.9	General transition specifications.....	46
Annex A	(informative) Algorithm for defining extended edge transition sections and adjacent reference sections	47
Annex B	(informative) Example of approximately equivalent specification of extended edge transition features	54
Annex C	(normative) Relations and dimensions of graphical symbols.....	56
Annex D	(informative) Relation to the GPS matrix model.....	57
Bibliography		58